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Summary

Document	Pages	Printed	Missed
WO009740159	116	116	0
Total (1)	116	116	0

```
=> "human herpesvirus"
        929855 "HUMAN"
        284585 "HUMANS"
       1081900 "HUMAN"
                 ("HUMAN" OR "HUMANS")
         12086 "HERPESVIRUS"
          1207 "HERPESVIRUSES"
         12427 "HERPESVIRUS"
                 ("HERPESVIRUS" OR "HERPESVIRUSES")
L3        8016 "HUMAN HERPESVIRUS"
                 ("HUMAN"(W)"HERPESVIRUS")

=> L3 (l) L1
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L3 (L) L1'
L4          99 L3 (L) L1

=> treatment 9l) L4
UNMATCHED RIGHT PARENTHESIS '9L) L4'
The number of right parentheses in a query must be equal to the
number of left parentheses.

=> treatment (l) L4
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'TREATMENT (L) L4'
       1523709 TREATMENT
        143187 TREATMENTS
       1602756 TREATMENT
                 (TREATMENT OR TREATMENTS)
L5          42 TREATMENT (L) L4

=> "multiple sclerosis"
        255371 "MULTIPLE"
          2401 "MULTIPLES"
        257528 "MULTIPLE"
                 ("MULTIPLE" OR "MULTIPLES")
         12024 "SCLEROSIS"
            17 "SCLEROSES"
         12036 "SCLEROSIS"
                 ("SCLEROSIS" OR "SCLEROSES")
L6        6956 "MULTIPLE SCLEROSIS"
                 ("MULTIPLE"(W)"SCLEROSIS")

=> L6 and L5
L7           4 L6 AND L5

=> "chronic Fatigue symdrome"
        129170 "CHRONIC"
             5 "CHRONICS"
        129173 "CHRONIC"
                 ("CHRONIC" OR "CHRONICS")
         65936 "FATIGUE"
            91 "FATIGUES"
         65962 "FATIGUE"
                 ("FATIGUE" OR "FATIGUES")
            10 "SYMDROME"
             1 "SYMDROMES"
            11 "SYMDROME"
                 ("SYMDROME" OR "SYMDROMES")
L8           0 "CHRONIC FATIGUE SYMDROME"
```

("CHRONIC"(W)"FATIGUE"(W)"SYMDROME")

=> D L7 IBIB TI SO AU ABS 1-4

L7 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:581739 CAPLUS
DOCUMENT NUMBER: 135:136432
TITLE: Human herpes virus 6A and 6B **transfer factors** for the **treatment** of chronic fatigue syndrome and **multiple sclerosis**
INVENTOR(S): Wilson, Gregory B.; Brewer, Joseph H.
PATENT ASSIGNEE(S): Animune Inc., USA
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001056608	A1	20010809	WO 2001-US3511	20010202

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-179647 P 20000202
TI Human herpes virus 6A and 6B **transfer factors** for the **treatment** of chronic fatigue syndrome and **multiple sclerosis**
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
IN Wilson, Gregory B.; Brewer, Joseph H.
AB The present invention provides **transfer factors** that confer cell-mediated immunity to **Human Herpesvirus**-6A and **Human Herpesvirus**-6B. The invention also provides pharmaceutical compns. comprising the **transfer factors** and methods of treating abnormalities in a subject using the **transfer factors**.
REFERENCE COUNT: 6
REFERENCE(S):
(1) Ablashi; Biotherapy 1996, V9, P81 CAPLUS
(2) Challoner; Proc Natl Acad Sci 1995, V92, P7440 CAPLUS
(3) Kim; Eur Nurol 2000, V43, P170 CAPLUS
(5) Wilson, G; US 4610878 1986 CAPLUS
(6) Wilson, G; US 4816563 1989 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:284082 CAPLUS
DOCUMENT NUMBER: 134:306211
TITLE: Gene **transfer** vectors for treating autoimmune diseases and diseases with immunopathogenesis

INVENTOR(S): Schwarzmann, Fritz
PATENT ASSIGNEE(S): Germany
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001027254	A2	20010419	WO 2000-DE3608	20001012

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: DE 1999-19948983 A 19991012

TI Gene **transfer** vectors for treating autoimmune diseases and diseases with immunopathogenesis

SO PCT Int. Appl., 82 pp.
CODEN: PIXXD2

IN Schwarzmann, Fritz

AB The invention relates to a gene **transfer** vector comprising a first nucleic acid sequence which codes for one or more ligands that trigger apoptosis, a second nucleic acid sequence which codes for one or more antigens, and, optionally, a third nucleic acid sequence which codes for one or more anti-apoptosis mols., and optionally, a fourth nucleic acid sequence which codes for one or more suicide enzymes.

L7 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:265562 CAPLUS
DOCUMENT NUMBER: 134:294513
TITLE: Process for inducing functional tolerance to gene **transfer** products
INVENTOR(S): Andersson, Goran K.
PATENT ASSIGNEE(S): Biotransplant Incorporated, USA
SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025398	A2	20010412	WO 2000-US26946	20000929

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-157233 P 19991001
TI Process for inducing functional tolerance to gene **transfer** products
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
IN Andersson, Goran K.
AB Methods of inducing functional tolerance for the expression products of transgenes in somatic cells are disclosed, which methods comprise the introduction into the recipient of stem cells, such as hematopoietic stem cells, transgenically modified so as to express one or more neoantigens, such procedure optionally preceded by a myeloreductive procedure. The purpose of the disclosed methods is to induce tolerance to these same antigens when later expressed by cells or vectors to be introduced as part of a gene therapy **treatment**.

L7 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:911120 CAPLUS
DOCUMENT NUMBER: 134:55498
TITLE: Compositions and methods for the **treatment** or prevention of autoimmune disorders using DNA vaccine encoding a self-antigen
INVENTOR(S): Von Herrath, Matthias G.
PATENT ASSIGNEE(S): The Scripps Research Institute, USA
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000078360	A1	20001228	WO 2000-US16218	20000613

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-336672 A 19990617
TI Compositions and methods for the **treatment** or prevention of autoimmune disorders using DNA vaccine encoding a self-antigen
SO PCT Int. Appl., 55 pp.
CODEN: PIXXD2
IN Von Herrath, Matthias G.
AB The present invention provides compns. and methods for the prevention or **treatment** of autoimmune disorders using DNA vaccine encoding a self-antigen. In particular, the invention methods utilize plasmid vector encoding at least a portion of an autoreactive epitope that, upon administration to a subject, acts to modulate the immune system thereby ameliorating conditions assocd. with an autoreactive antigen. The compns. and methods of the invention include co-administration of another vector encoding a biol. response modifier (e.g., a cytokine, chemokine, interferon, interleukin) for the effective induction of regulatory

cytokines to down-regulate the immune system of a mammal having an autoimmune condition. The invention is exemplified by the **treatment** or prevention of insulin dependent diabetes in a murine model using RIP-LCMV-NP: transgenic mouse line that expresses lymphocytic chiromeningitis virus nucleoprotein under control of the rat insulin promoter. The exemplary autoreactive epitope used is from insulin .beta. chain. RIP-NP transgenic mice are treated with pCMV-NP with pCMV-ins-B and LCMV-specific CTL responses are evaluated. The studies compare the progression of diabetes in immunized and non-immunized mice and show that the **transfer** of splenocytes from insulin-B protected mice prevents IDDM and the self-reactive (LCMV-NP) CTL activity in pCMV-B protected mice is reduced.

REFERENCE COUNT: 3

REFERENCE(S):
(1) Nicolette, C; WO 0020457 A 2000 CAPLUS
(2) Univ Southern California; WO 9745144 A 1997 CAPLUS
(3) Von Herrath, M; JOURNAL OF IMMUNOLOGY 1998, V161(9), P5087 CAPLUS

=> D L5 IBIB TI SO AU ABS 1-42

L5 ANSWER 1 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:581739 CAPLUS
DOCUMENT NUMBER: 135:136432
TITLE: Human herpes virus 6A and 6B **transfer factors** for the **treatment** of chronic fatigue syndrome and multiple sclerosis
INVENTOR(S): Wilson, Gregory B.; Brewer, Joseph H.
PATENT ASSIGNEE(S): Animune Inc., USA
SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001056608	A1	20010809	WO 2001-US3511	20010202

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-179647 P 20000202

TI Human herpes virus 6A and 6B **transfer factors** for the **treatment** of chronic fatigue syndrome and multiple sclerosis
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
IN Wilson, Gregory B.; Brewer, Joseph H.
AB The present invention provides **transfer factors** that confer cell-mediated immunity to **Human Herpesvirus**-6A and **Human Herpesvirus**-6B. The invention also provides pharmaceutical compns. comprising the **transfer factors** and methods of treating abnormalities in a subject using the

transfer factors.

REFERENCE COUNT: 6

REFERENCE(S):
(1) Ablashi; Biotherapy 1996, V9, P81 CAPLUS
(2) Challoner; Proc Natl Acad Sci 1995, V92, P7440 CAPLUS
(3) Kim; Eur Nurol 2000, V43, P170 CAPLUS
(5) Wilson, G; US 4610878 1986 CAPLUS
(6) Wilson, G; US 4816563 1989 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 42 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2001:382185 CAPLUS
DOCUMENT NUMBER: 135:87488
TITLE: Herpes simplex virus mediated nerve growth **factor** expression in bladder and afferent neurons: potential **treatment** for diabetic bladder dysfunction
AUTHOR(S): Goins, William. F.; Yoshimura, Naoki; Phelan, Michael W.; Yokoyama, Teruhiko; Fraser, Matthew O.; Ozawa, Hideo; Bennett, Nelson, Jr.; De Groat, William C.; Glorioso, Joseph C.; Chancellor, Michael B.
CORPORATE SOURCE: Department of Urology, Molecular Genetics and Biochemistry and Pharmacology, University of Pittsburgh School of Medicine, Pittsburgh, PA, USA
SOURCE: J. Urol. (Baltimore) (2001), 165(5), 1748-1754
CODEN: JOURAA; ISSN: 0022-5347
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Herpes simplex virus mediated nerve growth **factor** expression in bladder and afferent neurons: potential **treatment** for diabetic bladder dysfunction

SO J. Urol. (Baltimore) (2001), 165(5), 1748-1754
CODEN: JOURAA; ISSN: 0022-5347

AU Goins, William. F.; Yoshimura, Naoki; Phelan, Michael W.; Yokoyama, Teruhiko; Fraser, Matthew O.; Ozawa, Hideo; Bennett, Nelson, Jr.; De Groat, William C.; Glorioso, Joseph C.; Chancellor, Michael B.

AB Diabetic cystopathy resulting from sensory neuropathy may potentially be treated by direct gene therapy. It has been suggested that nerve growth **factor** (NGF) has an ameliorative effect in preventing the death in diabetes of afferent dorsal root ganglion neurons, which control bladder function. The authors investigated NGF gene **transfer** to the bladder and bladder afferent pathways for treating diabetic cystopathy. The authors used replication competent and replication defective herpes simplex virus type 1 (HSV-1) vectors that express a functionally active form of the .beta.-subunit of mouse NGF (.beta.-NGF) to examine the level and duration of therapeutic gene expression after administration of the vectors. NGF expression during acute (3 days) and latent (21 days) infections was assessed by ELISA and immunohistochem. testing after the injection of 1 .times. 106 to 1 .times. 108 pfu HSV-NGF expression vectors into the bladder wall of adult rats. HSV vectors with the strong human cytomegalovirus immediate early promoter used to drive .beta.-NGF gene expression exhibited increased NGF 3 days after infection in the bladder and L6 to S1 dorsal root ganglia, where bladder afferent neurons are located. ELISA anal. revealed that NGF in the bladder tissue and dorsal root ganglia was increased 7 to 9 and 2 to 4-fold, resp., over the control vector. Increased NGF expression in L6 to S1 dorsal root ganglia neurons was also detected by immunohistochem. staining with antiNGF antibodies.

Extended NGF expression was detected by ELISA 21 days after injection. Replication defective vectors contg. HSV-1 latency promoter (LAP-2) driving NGF expressed NGF in the bladder and dorsal root ganglia 21 days after bladder injection. ELISA anal. confirmed an approx. 2 to 3-fold increase of NGF expression in the bladder and L6 to S1 dorsal root ganglia. The NGF gene may be transferred and expressed in the bladder and bladder afferent pathways using HSV vectors. To the authors' knowledge the authors' study represents the first demonstration of the effectiveness of gene therapy for altering neurotrophic expression in visceral sensory neurons. This technique of gene **transfer** may be useful for treating certain types of neurogenic bladder dysfunction, such as diabetic cystopathy, in which decreased NGF transport may be a causative **factor**.

REFERENCE COUNT: 51
REFERENCE(S):
(1) Apfel, S; Brain Res 1994, V634, P7 CAPLUS
(2) Baumgartner, B; J Neurosci 1997, V17, P6504 CAPLUS
(4) Brewster, W; Trends Neurosci 1994, V17, P321 CAPLUS
(7) Clemow, D; J Urol 1999, V161, P1372 CAPLUS
(8) Coffin, R; Gene Ther 1996, V3, P886 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:354374 CAPLUS
DOCUMENT NUMBER: 135:146993
TITLE: Transcriptional activation of the thyroglobulin promoter directing suicide gene expression by thyroid transcription **factor**-1 in thyroid cancer cells
AUTHOR(S): Shimura, Hiroki; Suzuki, Hideyo; Miyazaki, Asako; Furuya, Fumihiko; Ohta, Kazuyasu; Haraguchi, Kazutaka; Endo, Toyoshi; Onaya, Toshimasa
CORPORATE SOURCE: Third Department of Internal Medicine, Yamanashi Medical University, Yamanashi, 409-3898, Japan
SOURCE: Cancer Res. (2001), 61(9), 3640-3646
CODEN: CNREA8; ISSN: 0008-5472
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Transcriptional activation of the thyroglobulin promoter directing suicide gene expression by thyroid transcription **factor**-1 in thyroid cancer cells
SO Cancer Res. (2001), 61(9), 3640-3646
CODEN: CNREA8; ISSN: 0008-5472
AU Shimura, Hiroki; Suzuki, Hideyo; Miyazaki, Asako; Furuya, Fumihiko; Ohta, Kazuyasu; Haraguchi, Kazutaka; Endo, Toyoshi; Onaya, Toshimasa
AB Gene therapy with thyroglobulin (TG) promoter and a prodrug/suicide gene combination may prove useful as a **treatment** for thyroid carcinoma. However, most poorly differentiated and anaplastic thyroid carcinomas have lost the ability to express the TG gene expression accompanied by loss of transcription **factors** [thyroid transcription **factor**-1 (TTF-1), TTF-2, or Pax-8] interacting with the TG promoter. In anticipation of developing transcriptionally targeted gene therapy of TG-nonproducing thyroid carcinomas, we

investigated the effect of TTF-1 gene **transfer** on TG promoter activity and the cytotoxic effect obtained by the TG promoter-driven HSV-TK gene along with ganciclovir in thyroid carcinoma and nonthyroidal cells. Using a chimeric construct contg. the 5'-flanking region of the rat TG gene between -826 and +39 bp and the luciferase gene, TG promoter activity was detected in a normal rat thyroid cell line (FRTL-5), but not in a dedifferentiated line of thyroid cells (FRT) expressing Pax-8 but not TTF-1, TTF-2, or TG [TTF-1(-)/TTF-2(-)/Pax-8(+)/TG(-)], or in a human papillary thyroid carcinoma cell line [BHP15-3; TTF-1(-)/TTF-2(-)/Pax-8(-)/TG(-)], a human pulmonary cell line [H441; TTF-1(+)/TTF-2(-)/Pax-8(-)/TG(-)], or a dog kidney epithelial cell line [MDCK; TTF-1(-)/TTF-2(-)/Pax-8(+)/TG(-)]. Cotransfection of the TTF-1 expression vector stimulated TG promoter activity in FRT and BHP15-3 dedifferentiated thyroid cells, but not in H441 pulmonary cells. Only weak activation was obsd. in MDCK kidney cells. We then constructed recombinant adenovirus vectors, AdTTF-1 and AdTGTK. AdTTF-1 contained cytomegalovirus promoter and rat TTF-1 cDNA; AdTGTK carried the TG promoter-driven HSV-TK gene. Infection with AdTGTK and combined with GCV **treatment** induced a cytotoxic effect in FRTL-5 cells but not in dedifferentiated thyroid or nonthyroid cells. Cotransduction of AdTTF-1 and AdTGTK permitted 90% cytotoxicity for BHP15-3 and >95% cytotoxicity for FRT, as well as for BHP7-13 and BHP18-21v thyroid cancer cell lines [both/TTF1(-)/TTF-2(-)/Pax-8(+)/TG(-)]. In contrast, little cytotoxicity was seen for H441 and MDCK cell lines even with 300 .mu.g/mL of ganciclovir. These results suggest that cotransduction of a TG promoter-controlled suicide gene and the TTF-1 gene by adenoviral vectors confers transcriptionally targeted gene-mediated cytotoxicity in poorly differentiated thyroid carcinoma cells unable to express the TG gene.

REFERENCE COUNT: 60

REFERENCE(S):
(1) Ali, M; Gene Ther 1994, V1, P367 CAPLUS
(4) Arnone, M; J Biol Chem 1995, V270, P12048 CAPLUS
(5) Arturi, F; J Clin Endocrinol Metab 1998, V83, P2493 CAPLUS
(6) Brand, K; Gene Ther 1998, V5, P1363 CAPLUS
(8) Damante, G; Biochim Biophys Acta 1994, V1218, P255 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 42 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2001:300737 CAPLUS
DOCUMENT NUMBER: 134:321579
TITLE: Modulation of cell phenotype by transformation with cAMP responsive element-binding proteins
INVENTOR(S): Reusch, Jane E.; Klemm, Dwight J.
PATENT ASSIGNEE(S): University Technology Corporation, USA; National Jewish Medical and Research Center; U.S. Government as Represented by the Department of Veterans Affairs
SOURCE: PCT Int. Appl., 155 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2001029062	A2	20010426	WO 2000-US28316	20001012	

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-420060 A 19991018

TI Modulation of cell phenotype by transformation with cAMP responsive element-binding proteins

SO PCT Int. Appl., 155 pp.
CODEN: PIXXD2

IN Reusch, Jane E.; Klemm, Dwight J.

AB Described is a method for modulating the phenotype of a cell, and particularly, of a target cell in a patient who has or is at risk of developing a disease or condition in which is assocd. with dysregulation of cellular phenotype. The method includes administration of a recombinant nucleic acid mol. encoding a protein having cAMP responsive element-binding (CREB) biol. activity or dominant neg. CREB biol. activity to a patient, in such a manner that the protein is expressed in a target cell of a patient and is sufficient to modulate the phenotype of the target cell. CREB is necessary and sufficient to initiate adipocyte differentiation, based on its constitutive expression in 3T3-L1 fibroblasts prior to the induction of adipogenesis and throughout the differentiation process. Furthermore, both CREB phosphorylation and transcriptional activity are rapidly induced in 3T3-L1 fibroblasts by conventional differentiation-inducing agents, and CREB binds to and stimulates transcription from the promoters of several adipocyte-specific genes. Augmentation of CREB protein expression by adenovrial gene **transfer** at the time of angioplasty will promoter smooth muscle cell differentiation and thereby decrease post-angioplasty restenosis. Such a method is particularly useful in patients who have, or at risk of developing, diabetes, obesity, macrovascular disease, heart failure, osteoarthritis, and neural diseases and conditions.

L5 ANSWER 5 OF 42 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2001:284082 CAPLUS
DOCUMENT NUMBER: 134:306211
TITLE: Gene **transfer** vectors for treating autoimmune diseases and diseases with immunopathogenesis
INVENTOR(S): Schwarzmann, Fritz
PATENT ASSIGNEE(S): Germany
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001027254	A2	20010419	WO 2000-DE3608	20001012

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,

HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: DE 1999-19948983 A 19991012
TI Gene **transfer** vectors for treating autoimmune diseases and diseases with immunopathogenesis
SO PCT Int. Appl., 82 pp.
CODEN: PIXXD2
IN Schwarzmann, Fritz
AB The invention relates to a gene **transfer** vector comprising a first nucleic acid sequence which codes for one or more ligands that trigger apoptosis, a second nucleic acid sequence which codes for one or more antigens, and, optionally, a third nucleic acid sequence which codes for one or more anti-apoptosis mols., and optionally, a fourth nucleic acid sequence which codes for one or more suicide enzymes.

L5 ANSWER 6 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:268273 CAPLUS
DOCUMENT NUMBER: 135:189595
TITLE: Herpes simplex virus as a vector for CNS gene therapy
AUTHOR(S): Miyatake, Shin-Ichi
CORPORATE SOURCE: Department of Neurosurgery, Osaka Medical College, Daigaku-machi, Takatsuki, Osaka, 569-8686, Japan
SOURCE: Shinkei Kenkyu no Shinpo (2001), 45(1), 30-36
CODEN: SKNSAF; ISSN: 0001-8724
PUBLISHER: Igaku Shoin Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
TI Herpes simplex virus as a vector for CNS gene therapy
SO Shinkei Kenkyu no Shinpo (2001), 45(1), 30-36
CODEN: SKNSAF; ISSN: 0001-8724
AU Miyatake, Shin-Ichi
AB A review with 25 refs. Herpes simplex virus (HSV) is a common pathogen in
humans, causing primarily cold sores, but occasionally life-threatening encephalitis. It is an enveloped virus bearing 152 kb of double-stranded DNA encoding over 75 genes, which has high infectivity for neurons and glias, as well as many other cell types. In neurons, HSV vectors are delivered by rapid retrograde transport along neuritis to the cell body, providing a means of targeting gene **transfer** to cells that is difficult to reach directly. The viral DNA is deposited in the nucleus, initially in a circularized episomal form, and eventually replicates, enters latency or is degraded depending on its compn. Two types of vectors are derived from HSV: one is recombinant and the other is defective (amplicon) HSV. Recombinant HSV vectors contain the full viral genome mutated in one or several virus genes to reduce toxicity and provide space for transgene (.apprx.30 kb). Conditionally replication-competent recombinant HSVs are constructed chiefly for the **treatment** of malignant gliomas. These HSV vectors are not the vehicles for gene **transfer** but the powerful weapon for the tumor destruction. The defective HSV vector consists of a plasmid bearing the HSV origin of DNA replication and packaging signal, which allows it to be packaged as a concatenate in HSV virions in the presence of HSV helper functions. The advantages of this type of vector are essentially no toxicity or antigenicity, as they express no virus proteins. Both types of vectors can **transfer** the gene of interest efficiently, esp.

into neurons. They can **transfer** antiapoptotic gene bcl-2 or neurotropic **factor** such as NGF for the **treatment** of ischemic cerebrovascular disease. Neurodegenerative diseases such as Parkinson's disease can be treated exptl. by means of **transfer** of tyrosine hydroxylase. Also amyotrophic lateral sclerosis may be challengeable by this type of vector using retrograde axonal transport of gene of interest. Now conditionally replication competent recombinant HSV vector is clin. tried for the **treatment** of malignant gliomas. Other types of diseases in central or peripheral nervous system can be challenged for gene therapy using HSV vectors from now on.

L5 ANSWER 7 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:265562 CAPLUS
DOCUMENT NUMBER: 134:294513
TITLE: Process for inducing functional tolerance to gene **transfer** products
INVENTOR(S): Andersson, Goran K.
PATENT ASSIGNEE(S): Biotransplant Incorporated, USA
SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025398	A2	20010412	WO 2000-US26946	20000929

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-157233 P 19991001
TI Process for inducing functional tolerance to gene **transfer** products
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
IN Andersson, Goran K.
AB Methods of inducing functional tolerance for the expression products of transgenes in somatic cells are disclosed, which methods comprise the introduction into the recipient of stem cells, such as hematopoietic stem cells, transgenically modified so as to express one or more neoantigens, such procedure optionally preceded by a myeloreductive procedure. The purpose of the disclosed methods is to induce tolerance to these same antigens when later expressed by cells or vectors to be introduced as part of a gene therapy **treatment**.

L5 ANSWER 8 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:155050 CAPLUS
DOCUMENT NUMBER: 135:146954
TITLE: Adenovirus-mediated gene therapy specific for small cell lung cancer cells using a Myc-Max binding motif
AUTHOR(S): Nishino, Kazumi; Osaki, Tadashi; Kumagai, Toru;

Kijima, Takashi; Tachibana, Isao; Goto, Hiroyuki; Arai, Toru; Kimura, Hiromi; Funakoshi, Toshiki; Takeda, Yoshito; Tanio, Yoshiro; Hayashi, Seiji

CORPORATE SOURCE: Department of Molecular Medicine, Osaka University Graduate School of Medicine, Osaka, 565-0871, Japan

SOURCE: Int. J. Cancer (2001), 91(6), 851-856
CODEN: IJCNAW; ISSN: 0020-7136

PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Adenovirus-mediated gene therapy specific for small cell lung cancer cells using a Myc-Max binding motif

SO Int. J. Cancer (2001), 91(6), 851-856
CODEN: IJCNAW; ISSN: 0020-7136

AU Nishino, Kazumi; Osaki, Tadashi; Kumagai, Toru; Kijima, Takashi; Tachibana, Isao; Goto, Hiroyuki; Arai, Toru; Kimura, Hiromi; Funakoshi, Toshiki; Takeda, Yoshito; Tanio, Yoshiro; Hayashi, Seiji

AB Recent clin. trials of gene therapy for patients with thoracic cancers have shown that these **treatments** were well tolerated with minimal side effects and that we need to further enhance specificity as well as efficiency of gene **transfer** to target cancer cells. We previously reported that myc-overexpressing SCLC cell lines became selectively sensitive to ganciclovir (GCV) by transducing the herpes simplex virus thymidine kinase (HSV-TK) gene under the control of the Myc-Max response elements (a core nucleotide sequence, CACGTG) and that this construct (MycTK) could be utilized to develop a novel **treatment** against chemo-radio-resistant SCLC. We report here in vivo antitumor effects and safety of a replication-deficient adenoviral vector contg. the Myc-Max binding motif (AdMycTK) on SCLC cells. In vitro infection with AdMycTK selectively rendered myc-overexpressing SCLC cell lines 63- to 307-fold more sensitive to GCV. In vivo injections with AdMycTK followed by GCV administration markedly suppressed the growth of myc-overexpressing tumors established in the subcutis or in the peritoneal cavity of athymic mice. On the other hand, infection with AdMycTK did not significantly affect either in vitro GCV sensitivity of the cells expressing very low levels of the myc genes or the growth of their s.c. tumors. Moreover, we obsd. no apparent side effects of this **treatment** including body wt. loss or biochem. abnormalities in contrast to the **treatment** with AdCATK that conferred strong but non-specific expression of the HSV-TK gene. These results suggested that AdMycTK/GCV therapy is effective on SCLC patients whose tumors overexpress myc family oncogenes.

REFERENCE COUNT: 29
REFERENCE(S):
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(5) Blackwell, T; Mol Cell Biol 1993, V13, P5216 CAPLUS
(6) Blackwell, T; Science 1990, V250, P1149 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2001:135252 CAPLUS
DOCUMENT NUMBER: 134:294314
TITLE: Cytokine gene **transfer** enhances herpes

oncolytic therapy in murine squamous cell carcinoma

AUTHOR(S): Wong, Richard J.; Patel, Snehal G.; Kim, Se-Heon; DeMatteo, Ronald P.; Malhotra, Sandeep; Bennett, Joseph J.; St-Louis, Maryse; Shah, Jatin P.; Johnson, Paul A.; Fong, Yuman

CORPORATE SOURCE: Head and Neck Division, Department of Surgery, Memorial Sloan-Kettering Cancer Center, New York, NY, 10021, USA

SOURCE: Hum. Gene Ther. (2001), 12(3), 253-265
CODEN: HGTHE3; ISSN: 1043-0342

PUBLISHER: Mary Ann Liebert, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Cytokine gene **transfer** enhances herpes oncolytic therapy in murine squamous cell carcinoma

SO Hum. Gene Ther. (2001), 12(3), 253-265
CODEN: HGTHE3; ISSN: 1043-0342

AU Wong, Richard J.; Patel, Snehal G.; Kim, Se-Heon; DeMatteo, Ronald P.; Malhotra, Sandeep; Bennett, Joseph J.; St-Louis, Maryse; Shah, Jatin P.; Johnson, Paul A.; Fong, Yuman

AB Replication-competent, attenuated herpes simplex viruses (HSV) have been demonstrated to be effective oncolytic agents in a variety of malignant tumors. Cytokine gene **transfer** has also been used as immunomodulatory therapy for cancer. To test the utility of combining these two approaches, two oncolytic HSV vectors (NV1034 and NV1042) were designed to express the murine GM-CSF and murine IL-12 genes, resp. These cytokine-carrying variants were compared with the analogous non-cytokine-carrying control virus (NV1023) in the **treatment** of murine SCC VII squamous cell carcinoma. All three viruses demonstrated similar infection efficiency, viral replication, and cytotoxicity in vitro. SCC VII cells infected by NV1034 and NV1042 effectively produced GM-CSF and IL-12, resp. In an SCC VII s.c. flank tumor model in immunocompetent C3H/HeJ mice, intratumoral injection with each virus caused a significant redn. in tumor vol. compared with saline injections. The NV1042-treated tumors showed a striking redn. in tumor vol. compared with the NV1023- and NV1034-treated tumors. On subsequent rechallenge in the contralateral flank with SCC VII cells, 57% of animals treated with NV1042 failed to develop tumors, in comparison with 14% of animals treated with NV1023 or NV1034, and 0% of naive animals. The increased antitumor efficacy seen with NV1042 in comparison with NV1023 and NV1034 was abrogated by CD4+ and CD8+ lymphocyte depletion. NV1042 is a novel, attenuated, oncolytic herpesvirus that effectively expresses IL-12 and elicits a T lymphocyte-mediated antitumor immune response against murine squamous cell carcinoma. Such combined oncolytic and immunomodulatory strategies hold promise in the **treatment** of cancer.

REFERENCE COUNT: 49

REFERENCE(S):
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(2) Ali, S; Cancer Res 2000, V60, P1663 CAPLUS
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 42 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2001:48006 CAPLUS

DOCUMENT NUMBER: 134:246979

TITLE: Combined suicide and granulocyte-macrophage colony-stimulating **factor** gene therapy

induces complete tumor regression and generates antitumor immunity

AUTHOR(S): Jones, Rebecca K.; Pope, Ian M.; Kinsella, Anne R.; Watson, Alastair J. M.; Christmas, Stephen E.

CORPORATE SOURCE: Department of Immunology, University of Liverpool Medical School, Liverpool, L69 3GA, UK

SOURCE: Cancer Gene Ther. (2000), 7(12), 1519-1528
CODEN: CGTHEG; ISSN: 0929-1903

PUBLISHER: Nature America Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Combined suicide and granulocyte-macrophage colony-stimulating **factor** gene therapy induces complete tumor regression and generates antitumor immunity

SO Cancer Gene Ther. (2000), 7(12), 1519-1528
CODEN: CGTHEG; ISSN: 0929-1903

AU Jones, Rebecca K.; Pope, Ian M.; Kinsella, Anne R.; Watson, Alastair J. M.; Christmas, Stephen E.

AB The use of prodrug-activated ("suicide") gene therapy has been shown to be effective in inducing tumor regression when only a small proportion of tumor cells contains the suicide gene. These expts. were designed to test whether addnl. therapeutic benefit may be obtained by stimulating the immune response. Murine MC26 colon carcinoma cells, either untransduced or transduced with genes for herpes simplex virus-1 thymidine kinase (HSV1-TK) or human GM-CSF, were injected s.c. into syngeneic BALB/c mice in various combinations. Inoculation of equal nos. of untransduced and HSV1-TK-contg. cells followed by ganciclovir (GCV) **treatment** resulted in almost complete tumor regression, but by 7 wk, tumors had recurred in all mice. A similar initial regression was obtained using equal nos. of cells contg. HSV1-TK and GM-CSF genes, but > 80% of these mice remained tumor-free after 3 mo. Groups of tumor-free mice that had received GM-CSF-contg. cells were left for different periods of time and rechallenged with unmodified MC26 cells on the opposite flank. Of the mice rechallenged 14, 28, and 108 days later, 100%, 88%, and 57%, resp., showed complete resistance to unmodified tumor cells. In mice that showed tumor regrowth, tumor vol. was much less than in control mice. Adoptive **transfer** of spleen cells from resistant mice to naive syngeneic mice resulted in partial resistance to challenge with unmodified tumor cells. Specific cytotoxicity against MC26 cells was only demonstrable in mice receiving GM-CSF-and HSV1-TK-contg. tumor cells. These expts. show that the presence of cells secreting GM-CSF in HSV1-TK-contg., regressing tumor is able to induce complete or partial resistance to tumor rechallenge. This indicates the potential usefulness of GM-CSF in enhancing other antitumor therapies.

REFERENCE COUNT: 57

REFERENCE(S):

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(5) Bonnekoh, B; J Invest Dermatol 1996, V106, P1163 CAPLUS
(6) Bonnekoh, B; J Invest Dermatol 1998, V110, P867 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 42 CAPLUS

ACCESSION NUMBER: 2000:911120 CAPLUS
DOCUMENT NUMBER: 134:55498
TITLE: Compositions and methods for the **treatment** or prevention of autoimmune disorders using DNA vaccine encoding a self-antigen
INVENTOR(S): Von Herrath, Matthias G.
PATENT ASSIGNEE(S): The Scripps Research Institute, USA
SOURCE: PCT Int. Appl., 55 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000078360	A1	20001228	WO 2000-US16218	20000613

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-336672 A 19990617

TI Compositions and methods for the **treatment** or prevention of autoimmune disorders using DNA vaccine encoding a self-antigen
SO PCT Int. Appl., 55 pp.
CODEN: PIXXD2
IN Von Herrath, Matthias G.
AB The present invention provides compns. and methods for the prevention or **treatment** of autoimmune disorders using DNA vaccine encoding a self-antigen. In particular, the invention methods utilize plasmid vector encoding at least a portion of an autoreactive epitope that, upon administration to a subject, acts to modulate the immune system thereby ameliorating conditions assocd. with an autoreactive antigen. The compns. and methods of the invention include co-administration of another vector encoding a biol. response modifier (e.g., a cytokine, chemokine, interferon, interleukin) for the effective induction of regulatory cytokines to down-regulate the immune system of a mammal having an autoimmune condition. The invention is exemplified by the **treatment** or prevention of insulin dependent diabetes in a murine model using RIP-LCMV-NP: transgenic mouse line that expresses lymphocytic chiromeningitis virus nucleoprotein under control of the rat insulin promoter. The exemplary autoreactive epitope used is from insulin .beta. chain. RIP-NP transgenic mice are treated with pCMV-NP with pCMV-ins-B and LCMV-specific CTL responses are evaluated. The studies compare the progression of diabetes in immunized and non-immunized mice and show that the **transfer** of splenocytes from insulin-B protected mice prevents IDDM and the self-reactive (LCMV-NP) CTL activity in pCMV-B protected mice is reduced.

REFERENCE COUNT: 3
REFERENCE(S):
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(2) Univ Southern California; WO 9745144 A 1997 CAPLUS
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L5 ANSWER 12 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:771068 CAPLUS
DOCUMENT NUMBER: 134:290035
TITLE: Growth inhibitory effect on glioma cells of adenovirus-mediated p16/INK4a gene **transfer** in vitro and in vivo
AUTHOR(S): Lee, Seung-Hoon; Kim, Mi-Sook; Kwon, Hee-Chung; Park, In-Chul; Park, Myung-Jin; Lee, Choon-Taek; Kim, Young-Whan; Kim, Chang-Min; Hong, Seok-Il
CORPORATE SOURCE: Laboratory of Cell Biology Korea Cancer Center Hospital College of Medicine, Seoul National University, Seoul, 139-706, S. Korea
SOURCE: Int. J. Mol. Med. (2000), 6(5), 559-563
CODEN: IJMMFG; ISSN: 1107-3756
PUBLISHER: International Journal of Molecular Medicine
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Growth inhibitory effect on glioma cells of adenovirus-mediated p16/INK4a gene **transfer** in vitro and in vivo
SO Int. J. Mol. Med. (2000), 6(5), 559-563
CODEN: IJMMFG; ISSN: 1107-3756
AU Lee, Seung-Hoon; Kim, Mi-Sook; Kwon, Hee-Chung; Park, In-Chul; Park, Myung-Jin; Lee, Choon-Taek; Kim, Young-Whan; Kim, Chang-Min; Hong, Seok-Il
AB The tumor suppressor gene p16/INK4a encodes a specific inhibitor of the cyclin D-dependent kinases CDK4 and CDK6. P16/INK4a prevents the assocn. of CDK4 with cyclin D1, and subsequently inhibits phosphorylation of retinoblastoma tumor suppressor protein (pRb), thus preventing exit from the G1 phase. In human cancers, the estd. frequency of genetic alteration involving the p16/INK4a locus is believed to be second only to alteration of p53. A high frequency (greater than 50%) of homozygous p16/INK4a gene deletion has been demonstrated in glioblastoma tissues and p16/INK4a is altered in 80% of glioma cell lines. Therefore, restoration of p16/INK4a would suppress cell proliferation and induce cell growth arrest. We showed here that restoration of p16/INK4a expression in p16 neg. U87MG, U251MG and partially deleted U373MG by Ad-CMV-p16/INK4a induced growth suppression in vitro and in vivo. Expression of p16 transferred by Ad-CMV-p16/INK4a in glioma cells was highly efficient and maintained for more than seven days. In addn., we found that the endogenous status of p16 and Rb might affect the expression of exogenous p16/INK4a gene and inhibitory effect of cell proliferation. Even though, there were several **factors** affecting the efficiency of Ad-CMV-p16/INK4 gene **transfer**, our results suggest that Ad-CMV-p16 gene therapy strategy is potentially useful and warrants further clin. investigation for the **treatment** of gliomas.
REFERENCE COUNT: 28
REFERENCE(S): (1) Akli, S; Nat Genet 1993, V3, P224 CAPLUS
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(4) Chintala, S; Oncogene 1997, V15, P2049 CAPLUS
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 13 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:671906 CAPLUS
DOCUMENT NUMBER: 134:256670
TITLE: Developing a virosome-mediated gene delivery

AUTHOR(S): Kaneda, Yasufumi; Morishita, Ryuichi
CORPORATE SOURCE: Division of Gene Therapy Sciencey, Graduate School of Medicine, Osaka University, Suita, 565-0871, Japan
SOURCE: Proc. Int. Symp. Controlled Release Bioact. Mater. (2000), 27th, 171-172
CODEN: PCRMEY; ISSN: 1022-0178
PUBLISHER: Controlled Release Society, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Developing a virosome-mediated gene delivery
SO Proc. Int. Symp. Controlled Release Bioact. Mater. (2000), 27th, 171-172
CODEN: PCRMEY; ISSN: 1022-0178
AU Kaneda, Yasufumi; Morishita, Ryuichi
AB A novel hybrid gene **transfer** vector was developed by combining viral and nonviral vectors. DNA-loaded liposomes consisting of phospholipids and cholesterol were prepd. by vortexing or reverse-phase evapn. The liposomes were fused with UV-inactivated HVJ (Sendai virus) to form the fusogenic viral-liposome, HVJ-liposome (400 to 500 nm in diam.). For more efficient gene delivery, lipid components of the liposomes were investigated and new anionic liposomes with a virus-mimicking lipid compn. (HVJ-AVE liposome) and HVJ-cationic liposomes were developed. For longterm gene expression, Epstein-Barr virus replicon vector was also developed. HVJ-liposome gene delivery system seem to be promising for the **treatment** of intractable human diseases.

REFERENCE COUNT: 1
REFERENCE(S): (1) Kaneda, Y; Mol Medicine Today 1999, V5, P298
CAPLUS

L5 ANSWER 14 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:608578 CAPLUS
DOCUMENT NUMBER: 133:203023
TITLE: Nitrosated and nitrosylated proton pump inhibitors, compositions and methods of use
INVENTOR(S): Garvey, David S.; Letts, L. Gordon; Tam, Sang William; Wang, Tiansheng; Richardson, Stewart K.
PATENT ASSIGNEE(S): Nitromed, Inc., USA
SOURCE: PCT Int. Appl., 100 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000050037	A1	20000831	WO 2000-US2524	20000225

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-122111 P 19990226

OTHER SOURCE(S): MARPAT 133:203023
TI Nitrosated and nitrosylated proton pump inhibitors, compositions and methods of use
SO PCT Int. Appl., 100 pp.
CODEN: PIXXD2
IN Garvey, David S.; Letts, L. Gordon; Tam, Sang William; Wang, Tiansheng; Richardson, Stewart K.
AB The invention describes nitrosated and/or nitrosylated proton pump inhibitor compds., as well as compns. comprising .gtoreq.1 proton pump inhibitor compd. that is optionally substituted with .gtoreq.1 NO and/or NO2 group, and, optionally, .gtoreq.1 compd. that donates, **transfers** or releases nitric oxide, stimulates endogenous synthesis of nitric oxide, elevates endogenous levels of endothelium-derived relaxing **factor**, or is a substrate for nitric oxide synthase, and/or .gtoreq.1 nonsteroidal antiinflammatory drug, selective COX-2 inhibitor antacid, bismuth-contg. reagent, acid-degradable antibacterial compd., and mixts. thereof. The invention also provides methods for treating and/or preventing gastrointestinal disorders; facilitating ulcer healing; decreasing the recurrence of ulcers; improving gastroprotective properties, anti-Helicobacter pylori properties or antacid properties of proton pump inhibitors; decreasing or reducing the gastrointestinal toxicity assocd. with the use of nonsteroidal antiinflammatory compds.; and treating Helicobacter pylori and viral infections. The compds. and/or compns. of the present invention can also be provided in the form of a pharmaceutical kit. Prepn. of e.g. nitrosylated lansoprazole is described. Compared to lansoprazole, the nitrosylated lansoprazole significantly inhibited the formation of EtOH/HCl-induced gastric lesions.
REFERENCE COUNT: 2
REFERENCE(S): (1) Eek; US 5599794 A 1997 CAPLUS
(2) Eek; US 5629305 A 1997 CAPLUS

L5 ANSWER 15 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:466629 CAPLUS
DOCUMENT NUMBER: 133:159678
TITLE: Absence of in vitro or in vivo bystander effects in a thymidine kinase-transduced murine T lymphoma
AUTHOR(S): Rivas, Carmen; Chandler, Phil; Melo, Junia V.; Simpson, Elizabeth; Apperley, Jane F.
CORPORATE SOURCE: Department of Haematology, Imperial College of Science, Technology, and Medicine, Hammersmith Hospital, London, W12 0NN, UK
SOURCE: Cancer Gene Ther. (2000), 7(6), 954-962
CODEN: CGTHEG; ISSN: 0929-1903
PUBLISHER: Nature America Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Absence of in vitro or in vivo bystander effects in a thymidine kinase-transduced murine T lymphoma
SO Cancer Gene Ther. (2000), 7(6), 954-962
CODEN: CGTHEG; ISSN: 0929-1903
AU Rivas, Carmen; Chandler, Phil; Melo, Junia V.; Simpson, Elizabeth; Apperley, Jane F.
AB Among the goals of an optimal gene **transfer** system are a predictably high efficiency of **transfer** and the ability to confer stable gene expression. An addnl. benefit of strategies designed to target tumor or effector cells could be the induction of a bystander effect. Although tumor killing by the bystander effect in vivo has been obtained in several types of malignant tumors, it has not been reported

for T lymphomas. The goals of this work were to det. the stability of the expression of the herpes simplex virus type-1 thymidine kinase and the low-affinity receptor for nerve growth **factor** truncated of its intracellular domain (.DELTA.LNGFR) genes inserted in a murine T lymphoma; in addn., we sought to det. whether a bystander effect (direct or indirect) was present after **treatment** of the transduced tumor with ganciclovir. This study demonstrates a high level of stable expression of both genes in the T lymphoma in vitro and in vivo. However, we could not detect direct or indirect bystander effects in vivo mediated by the herpes simplex virus thymidine kinase/ganciclovir system in this tumor of lymphocyte origin. This is the first report to investigate bystander effects in vivo on a T-cell lineage tumor; in addn., this report has implications for the therapeutic **transfer** of non-transformed, antigen-specific T cells in vivo.

REFERENCE COUNT: 37

REFERENCE(S):
(1) Bi, W; Hum Gene Ther 1993, V4, P725 CAPLUS
(2) Chen, S; Cancer Res 1996, V56, P3758 CAPLUS
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ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 16 OF 42 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:351683 CAPLUS

DOCUMENT NUMBER: 132:352777

TITLE: Ligand-mediated cancer targeting of viral vectors used in gene delivery system and gene therapy

INVENTOR(S): Chang, Esther H.; Pirollo, Kathleen; Xu, Liang; Alexander, William

PATENT ASSIGNEE(S): Georgetown University, USA; Synergene Therapeutics, Inc.

SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000029600	A1	20000525	WO 1999-US27365	19991119
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1131457	A1	20010912	EP 1999-959034	19991119
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: US 1998-109236 P 19981119

US 1999-128330 P 19990408
WO 1999-US27365 W 19991119

TI Ligand-mediated cancer targeting of viral vectors used in gene delivery system and gene therapy
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
IN Chang, Esther H.; Pirollo, Kathleen; Xu, Liang; Alexander, William
AB The present invention provides compns. and methods for targeted virus deliyery relates to gene **transfer** and gene therapy technol. The viral vectors are mixed with ligands, such as transferrin since its receptor is expressed on most tumor cells, without crosslinking reaction for specific cancer cell targeting. Transferrin enhances gene transduction efficiency of adenoviral vectors, retroviral vectors, and herpes simplex virus vectors. The system is also tested to deliver p53 gene in vivo to mouse xenografts markedly sensitized the tumors in conjunction with radiotherapy and chemotherapy **treatment**. The combination of systemic p53 gene therapy and conventional radiotherapy or chemotherapy resulted in total tumor regression and long term inhibition of recurrence.

REFERENCE COUNT: 6
REFERENCE(S):
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(2) Cotten, M; WO 9424299 A 1994 CAPLUS
(3) Deonarain, M; EXPERT OPINION ON THERAPEUTIC PATENTS 1998, V8(1), P53 CAPLUS
(4) Miller, N; FASEB JOURNAL, US, FED OF AMERICAN SOC FOR EXPERIMENTAL BIOLOGY 1995, V9(2), P190 CAPLUS
(5) Sosnowski Us; WO 9840508 A 1998 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 17 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:228319 CAPLUS
DOCUMENT NUMBER: 133:395
TITLE: Bystander-mediated regression of osteosarcoma via retroviral **transfer** of the herpes simplex virus thymidine kinase and human interleukin-2 genes
AUTHOR(S): Walling, Hobart W.; Swarthout, John T.; Culver, Kenneth W.
CORPORATE SOURCE: Human Gene Therapy Research Institute, Iowa Methodist Medical Center, Central Iowa Health Systems, Des Moines, IA, 50312, USA
SOURCE: Cancer Gene Ther. (2000), 7(2), 187-196
CODEN: CGTHEG; ISSN: 0929-1903
PUBLISHER: Nature America, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Bystander-mediated regression of osteosarcoma via retroviral **transfer** of the herpes simplex virus thymidine kinase and human interleukin-2 genes
SO Cancer Gene Ther. (2000), 7(2), 187-196
CODEN: CGTHEG; ISSN:.0929-1903
AU Walling, Hobart W.; Swarthout, John T.; Culver, Kenneth W.
AB Current **treatment** of osteosarcoma produces disappointing outcomes, and innovative therapies must be investigated. We have used retroviral vectors to **transfer** the herpes simplex virus thymidine kinase (HSVtk) and interleukin-2 genes to human osteosarcoma cells. Each gene was stably transduced and expressed; the HSVtk gene effectively conferred ganciclovir (GCV) susceptibility to transduced cells. A strong bystander effect was obsd. in vitro, whereby nontransduced tumor cells in proximity to transduced cells acquired susceptibility to GCV killing. Human osteosarcoma cells were used to

develop a series of expts. in athymic nude mice to treat exptl. osteosarcoma. S.c. implanted mixts. of tumor cells and HSVtk vector producer cells developed into tumors that completely regressed upon administration of GCV. S.c. implanted mixts. of transduced and wild-type cells showed a potent bystander effect upon administration of GCV, with complete tumor ablation when as little as 10% of the cells were HSVtk+.

A

significant (P <.05) antitumoral response was seen against primary tumors composed of unmodified cells when a secondary tumor of transduced cells was implanted at a distance of 1 cm, suggesting a diffusible bystander **factor**. The presence of interleukin-2-transduced cells improved the efficacy of **treatment**. A significant (P <.03) antitumoral response was seen in the **treatment** of established osteosarcomas by the injection of HSVtk vector producer cells.

REFERENCE COUNT: 39
REFERENCE(S):
(1) Barba, D; Proc Natl Acad Sci USA 1994, V91, P4348 CAPLUS
(2) Bi, W; Hum Gene Ther 1993, V4, P725 CAPLUS
(5) Cheon, J; Cancer Gene Ther 1997, V4, P359 CAPLUS
(6) Coll, J; Gene Ther 1997, V4, P1160 CAPLUS
(9) Dranoff, G; J Clin Oncol 1998, V16, P2548 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 18 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:68356 CAPLUS
DOCUMENT NUMBER: 132:121460
TITLE: Methods and compositions for cancer **treatment**
INVENTOR(S): Marinkovich, Vincent
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000003733	A1	20000127	WO 1999-US15716	19990712
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9950970	A1	20000207	AU 1999-50970	19990712

PRIORITY APPLN. INFO.: US 1998-93084 P 19980716
WO 1999-US15716 W 19990712

TI Methods and compositions for cancer **treatment**
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
IN Marinkovich, Vincent
AB Compns., vaccines and kits for cancer immunotherapy are described. The compns., vaccines and kits may include **transfer factor**. The compns., vaccines and kits also include modified monoclonal antibodies directed to cancer cells, other specific cancer receptor agonists, or viruses which infect cancer cells. The invention is also

directed to methods of cancer immunotherapy using the compns. and vaccines of the invention.

REFERENCE COUNT: 6

REFERENCE(S):
(1) AS Alfred Benzon; EP 0010738 A 1980 CAPLUS
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(5) Moser, M; THE JOURNAL OF IMMUNOLOGY 1992, V149(2), P454 CAPLUS
(6) Prasad, U; BIOTHERAPY 1996, V9(1-3), P109 MEDLINE
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 19 OF 42 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1999:763911 CAPLUS

DOCUMENT NUMBER: 131:347512

TITLE: Method of transforming neural cells for expression of exogenous genes and secretion to non-neural cells in animals via gene **transfer**.

INVENTOR(S): Glorioso, Joseph C.; Wolfe, Darren P.; Goins, William F.

PATENT ASSIGNEE(S): University of Pittsburgh of the Commonwealth System of Higher Education, USA

SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9961067	A1	19991202	WO 1999-US11697	19990527
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9942103	A1	19991213	AU 1999-42103	19990527
EP 1082140	A1	20010314	EP 1999-925911	19990527
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: US 1998-86935 P 19980527
WO 1999-US11697 W 19990527

TI Method of transforming neural cells for expression of exogenous genes and secretion to non-neural cells in animals via gene **transfer**.

SO PCT Int. Appl., 21 pp.
CODEN: PIXXD2

IN Glorioso, Joseph C.; Wolfe, Darren P.; Goins, William F.

AB Method of in vivo long-term expression of exogenous genes in animals via gene **transfer** was developed. The method involves introducing an expression cassette including an exogenous gene into neural cells. The gene is operably linked to a promotor able to drive the expression of the gene within the target cells where the vector is introduced. The method

provides a way of delivering a **factor** to non-neural tissues when the gene introduced in the neural cell results in expression of secreted protein. It also provides a method of treating neuropathy when the gene introduced codes for a neuro-active **factor**. The method also provides a method of promoting long-term gene expression in vivo, by employing a herpesvirus to deliver a transgene to a desired tissue of a host animal. The method also permits repeat administration of the transgene.

REFERENCE COUNT: 2
REFERENCE(S):
(1) Glorioso, J; WO 9627672 A 1996 CAPLUS
(2) Glorioso, J; Annual Review of Microbiology 1995, V49, P675 CAPLUS

L5 ANSWER 20 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1999:722933 CAPLUS
DOCUMENT NUMBER: 131:332126
TITLE: Muscle-derived cell mediated gene delivery for treating muscle- and bone-related injury or dysfunction
INVENTOR(S): Chancellor, Michael B.; Huard, Johnny
PATENT ASSIGNEE(S): University of Pittsburgh, USA
SOURCE: PCT Int. Appl., 140 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9956785	A2	19991111	WO 1999-US9451	19990430
WO 9956785	A3	20010419		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9937757	A1	19991123	AU 1999-37757	19990430
EP 1113807	A2	20010711	EP 1999-920202	19990430
R: AT, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: US 1998-83917 P 19980501
WO 1999-US9451 W 19990430

TI Muscle-derived cell mediated gene delivery for treating muscle- and bone-related injury or dysfunction
SO PCT Int. Appl., 140 pp.
CODEN: PIXXD2
IN Chancellor, Michael B.; Huard, Johnny
AB The invention provides muscle-derived cells, preferably myoblasts and muscle-derived stem cells, genetically engineered to contain and express one or more heterologous genes or functional segments of such genes, for delivery of the encoded gene products at or near sites of musculoskeletal, bone, ligament, meniscus, cartilage or genitourinary disease, injury, defect, or dysfunction. Ex vivo myoblast mediated gene delivery of human inducible nitric oxide synthase, and the resulting prodn. of nitric oxide

at and around the site of injury, are particularly provided by the invention as a **treatment** for lower genitourinary tract dysfunctions. Ex vivo gene **transfer** for the musculoskeletal system includes genes encoding acidic fibroblast growth **factor**, basic fibroblast growth **factor**, epidermal growth **factor**, insulin-like growth **factor**, platelet derived growth **factor**, transforming growth **factor**-.beta., transforming growth **factor**-.alpha., nerve growth **factor** and interleukin-1 receptor antagonist protein (IRAP), bone morphogenetic protein (BMPs), cartilage derived morphogenetic protein (CDMPs), vascular endothelial growth **factor** (VEGF), and sonic hedgehog proteins.

L5 ANSWER 21 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:748954 CAPLUS
DOCUMENT NUMBER: 130:104844
TITLE: Comparative study of **transfer factor** and acyclovir in the **treatment** of herpes zoster
AUTHOR(S): Estrada-Parra, S.; Nagaya, A.; Serrano, E.; Rodriguez, O.; Santamaria, V.; Ondarza, R.; Chavez, R.; Correa, B.; Monges, A.; Cabezas, R.; Calva, C.; Estrada-Garcia, I.
CORPORATE SOURCE: Department of Immunology, National School of Biological Sciences, National Polytechnic Institute, Prol. Carpio Y Plan de Ayala, Mexico, Mex.
SOURCE: Int. J. Immunopharmacol. (1998), 20(10), 521-535
CODEN: IJIMDS; ISSN: 0192-0561
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Comparative study of **transfer factor** and acyclovir in the **treatment** of herpes zoster
SO Int. J. Immunopharmacol. (1998), 20(10), 521-535
CODEN: IJIMDS; ISSN: 0192-0561
AU Estrada-Parra, S.; Nagaya, A.; Serrano, E.; Rodriguez, O.; Santamaria, V.; Ondarza, R.; Chavez, R.; Correa, B.; Monges, A.; Cabezas, R.; Calva, C.; Estrada-Garcia, I.
AB Reactivation of varicella herpes virus (VHV), latent in individuals who have previously suffered varicella, gives rise to herpes zoster and in some cases leads to a sequela of post herpetic neuritis with severe pain which is refractory to analgesics. Many different antiviral agents have been tried without achieving satisfactory results. Of all the antiviral agents employed, acyclovir has been the most successful in reducing post herpetic pain. However acyclovir has not been as reliable as interferon .alpha. (IFN-.alpha.). We have previously looked into the use of **transfer factor** (TF) as a modulator of the immune system, specifically with respect to its effectiveness in the **treatment** of herpes zoster. In this work findings from a comparative clin. evaluation are presented. A double blind clin. trial of TF vs acyclovir was carried out in which 28 patients, presenting acute stage herpes zoster, were randomly assigned to either **treatment** group. **Treatment** was administered for seven days and the patients were subsequently submitted to daily clin. observation for an addnl. 14 days. An analog visual scale was implemented in order to record pain and thereby served as the clin. parameter for scoring results. The group treated with TF was found to have a more favorable clin. course, P

.ltoreq. 0.015. Lab. tests to assess the immune profile of the patients were performed two days prior and 14 days after initial **treatment** . The results of these tests showed an increase in IFN-.gamma. levels, augmentation in the CD4+ cell population but not the percentage of T rosettes in the TF treated group. These parameters were however insignificantly modified in patients receiving acyclovir. Although TF treated patients showed an increase in CD4+ counts these cells remained below the levels for healthy individuals. The fact that IFN-.gamma. levels as wells as the counts for CD4+ cells rose in the TF treated group and not in the acyclovir one is very significant and confirms the immunomodulating properties of TF.

REFERENCE COUNT: 33

REFERENCE(S): (3) Berger, R; Infect Immun 1981, V32, P24 MEDLINE
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(19) Lawrence, H; J Clin Inv 1955, V34, P219 CAPLUS
(27) Rozzo, S; Mol Immunol 1992, V29, P167 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 22 OF 42 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1998:527446 CAPLUS

DOCUMENT NUMBER: 129:145631

TITLE: Expression vectors with ubiquitin promoter and methods for in vivo expression of therapeutic polypeptides

INVENTOR(S): Johansen, Teit E.

PATENT ASSIGNEE(S): Neurosearch A/S, Den.; Bavarian Nordic Research Institute A/S

SOURCE: PCT Int. Appl., 29 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9832869	A1	19980730	WO 1998-DK37	19980129
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 961830	A1	19991208	EP 1998-900847	19980129
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: DK 1997-102 19970129
WO 1998-DK37 19980129

TI Expression vectors with ubiquitin promoter and methods for in vivo expression of therapeutic polypeptides

SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2

IN Johansen, Teit E.

AB The present invention relates to recombinant expression vectors carrying a gene encoding a therapeutically active polypeptide, which gene is under transcriptional control of a ubiquitin promoter. The invention also relates to the use of a ubiquitin promoter to direct in vivo expression of

therapeutic genes after **transfer** of such genes to the central nervous system. The expression vectors include hepes virus vectors, vaccinia virus vectors, adeno-assocd. virus vectors, retroviral vectors, and adenovirus vectors. Vector-expressed therapeutic genes may encode a nerve growth **factor**, a fibroblast growth **factor**, an insulin-like growth **factor**, etc.

L5 ANSWER 23 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:517159 CAPLUS
DOCUMENT NUMBER: 129:188218
TITLE: Lipid-mediated gene **transfer** of viral IL-10 prolongs vascularized cardiac allograft survival by inhibiting donor-specific cellular and humoral immune responses
AUTHOR(S): DeBruyne, L. A.; Li, K.; Chan, S. Y.; Qin, L.; Bishop, D. K.; Bromberg, J. S.
CORPORATE SOURCE: Dep. Surg., Univ. Michigan Med. Cent., Ann Arbor, MI, 48109, USA
SOURCE: Gene Ther. (1998), 5(8), 1079-1087
CODEN: GETHEC; ISSN: 0969-7128
PUBLISHER: Stockton Press
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Lipid-mediated gene **transfer** of viral IL-10 prolongs vascularized cardiac allograft survival by inhibiting donor-specific cellular and humoral immune responses
SO Gene Ther. (1998), 5(8), 1079-1087
CODEN: GETHEC; ISSN: 0969-7128
AU DeBruyne, L. A.; Li, K.; Chan, S. Y.; Qin, L.; Bishop, D. K.; Bromberg, J. S.
AB The gene encoding the immunosuppressive cytokine viral interleukin-10 (vIL-10) was introduced into BALB/c (H-2d) vascularized cardiac allografts by perfusing the graft vasculature with DNA-liposome complexes, utilizing the exptl. cationic lipid .gamma.AP DLRIE/DOPE and a plasmid encoding vIL-10 under the control of the HCMVie promoter. The DNA to lipid ratio and DNA dose were crit. **factors** in obtaining optimal biol. effects. Gene **transfer** of vIL-10 with a 3:1 DNA to lipid wt. ratio using 375 .mu.g DNA significantly prolonged allograft survival in MHC-mis-matched C57BL/6 (H-2b) recipients (16.00 days) compared with both unmodified allografts (8.14 days) and vIL-10 anti-sense controls (8.28 days). Enhanced graft survival was specific to vIL-10 expression since **treatment** with anti-sense plasmid or anti-vIL-10 monoclonal antibody (mAb) abrogated the effect. Prolonged survival was assocd. with a novel histol. characterized by a moderate mono-nuclear infiltrate, edema, and diffuse fibrillar/collagen deposition in the interstitium. Despite these morphol. changes, myocytes remained viable and vessels were patent. Limiting diln. anal. revealed transient infiltration of IL-2 secreting, donor-reactive, helper T lymphocytes (HTL) and cytotoxic T lymphocytes (CTL) in vIL-10 expressing grafts on day 7, the decreased significantly by day 14. Similarly, vIL-10 gene **transfer** inhibited the accumulation of donor-specific HTL and CTL in the spleen, compared with antisense controls. Prolonged survival was also assocd. with a marked decrease in IgM and IgG alloantibody prodn., with little to no IgG isotype switching. These results show that viral IL-10 gene **transfer** inhibits graft rejection in a clin. relevant model by inhibiting donor-specific cellular and humoral immune responses.

L5 ANSWER 24 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:477767 CAPLUS
DOCUMENT NUMBER: 129:201972
TITLE: Immunomodulation by mucosal gene **transfer** using TGF-.beta. DNA
AUTHOR(S): Kuklin, Nelly A.; Daheshia, Massoud; Chun, Sangjun; Rouse, Barry T.
CORPORATE SOURCE: Department of Microbiology, The University of Tennessee, Knoxville, TN, 37996-0845, USA
SOURCE: J. Clin. Invest. (1998), 102(2), 438-444
CODEN: JCINAO; ISSN: 0021-9738
PUBLISHER: Rockefeller University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Immunomodulation by mucosal gene **transfer** using TGF-.beta. DNA
SO J. Clin. Invest. (1998), 102(2), 438-444
CODEN: JCINAO; ISSN: 0021-9738
AU Kuklin, Nelly A.; Daheshia, Massoud; Chun, Sangjun; Rouse, Barry T.
AB This report evaluates the efficacy of DNA encoding TGF-.beta. administered mucosally to suppress immunity and modulate the immunoinflammatory response to herpes simplex virus (HSV) infection. A single intranasal administration of an eukaryotic expression vector encoding TGF-.beta.1 led to expression in the lung and lymphoid tissue. T cell-mediated immune responses to HSV infection were suppressed with this effect persisting as measured by the delayed-type hypersensitivity reaction for at least 7 wk. Treated animals were more susceptible to systemic infection with HSV. Multiple prophylactic mucosal administrations of TGF-.beta. DNA also suppressed the severity of ocular lesions caused by HSV infection, although no effects on this immunoinflammatory response were evident after therapeutic **treatment** with TGF-.beta. DNA. Thus, the direct mucosal gene **transfer** of immunomodulatory cytokines provides a convenient means of modulating immunity and influencing the expression of inflammatory disorders.

L5 ANSWER 25 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:379164 CAPLUS
DOCUMENT NUMBER: 129:37204
TITLE: Multiple functional ligand system for target-cell-specific **transfer** of nucleotide sequences and **treatment** of diseases
INVENTOR(S): Sedlacek, Hans-Harald; Mueller, Rolf
PATENT ASSIGNEE(S): Hoechst A.-G., Germany
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19649645	A1	19980604	DE 1996-19649645	19961129
CA 2217159	AA	19980529	CA 1997-2217159	19971127
AU 9745407	A1	19980604	AU 1997-45407	19971127
AU 729798	B2	20010208		
EP 846772	A1	19980610	EP 1997-120939	19971128
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO

CN 1188149	A	19980722	CN 1997-108581	19971128
JP 11000169	A2	19990106	JP 1997-330508	19971201
BR 9706032	A	19990427	BR 1997-6032	19971201

PRIORITY APPLN. INFO.: DE 1996-19649645 A 19961129

TI Multiple functional ligand system for target-cell-specific **transfer** of nucleotide sequences and **treatment** of diseases

SO Ger. Offen., 18 pp.
CODEN: GWXXBX

IN Sedlacek, Hans-Harald; Mueller, Rolf

AB The title system for transformation and its use is disclosed. Thus, an anti-N-CAM Fv fragment fused via a 20-residue peptide to anti-N6-methyladenine Fv fragment was produced with recombinant Escherichia coli. N6-methylated plasmid was prepd. with E. coli. Complex of methylated plasmid with fusion protein was added to N-CAM-expressing tumor cells. Transformation of the tumor cell was demonstrated.

L5 ANSWER 26 OF 42 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 1998:300470 CAPLUS
DOCUMENT NUMBER: 128:304049
TITLE: Antitumor therapy with DNA-damaging agents and adenoviral **transfer** of gene p53
INVENTOR(S): Roth, Jack A.; Fujiwara, Toshiyoshi; Grimm, Elizabeth A.; Mukhopadhyay, Tapas; Zhang, Wei-wei; Owen-Schaub, Laurie B.
PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA
SOURCE: U.S., 47 pp. Cont.-in-part of U.S. Ser. No. 145,826.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5747469	A	19980505	US 1994-233002	19940425
US 6017524	A	20000125	US 1992-960513	19921013
WO 9528948	A1	19951102	WO 1995-US4898	19950424
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TT, UA				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9523924	A1	19951116	AU 1995-23924	19950424
AU 694216	B2	19980716		
EP 760675	A1	19970312	EP 1995-917100	19950424
EP 760675	B1	20010801		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CN 1147768	A	19970416	CN 1995-192776	19950424
HU 76258	A2	19970728	HU 1996-2937	19950424
BR 9507506	A	19970902	BR 1995-7506	19950424
JP 10503476	T2	19980331	JP 1995-527776	19950424
RU 2146149	C1	20000310	RU 1996-122787	19950424
NO 9604527	A	19961217	NO 1996-4527	19961024
US 6069134	A	20000530	US 1997-953290	19971017

PRIORITY APPLN. INFO.: US 1991-665538 B2 19910306
US 1992-960513 A2 19921013
US 1993-145826 A2 19931029
US 1992-960543 B2 19921013
US 1994-233002 A 19940425
WO 1995-US4898 W 19950424

TI Antitumor therapy with DNA-damaging agents and adenoviral **transfer** of gene p53

SO U.S., 47 pp. Cont.-in-part of U.S. Ser. No. 145,826.
CODEN: USXXAM

IN Roth, Jack A.; Fujiwara, Toshiyoshi; Grimm, Elizabeth A.; Mukhopadhyay, Tapas; Zhang, Wei-wei; Owen-Schaub, Laurie B.

AB The present invention relates to the use of tumor-suppressor genes in combination with a DNA-damaging agent or **factor** for use in killing cells, and in particular cancerous cells. A tumor suppressor gene, p53, was delivered via a recombinant adenovirus-mediated gene **transfer** both in vitro and in vivo, in combination with a chemotherapeutic agent. Treated cells underwent apoptosis with specific DNA fragmentation. Direct injection of the p53-adenovirus construct into tumors s.c., followed by i.p. administration of a DNA-damaging agent, cisplatin, induced massive apoptotic destruction of the tumors. The invention also provides for the clin. application of a regimen combining gene replacement using replication-deficient wild-type p53 adenovirus and DNA-damaging drugs for **treatment** of human cancer.

L5 ANSWER 27 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1998:204297 CAPLUS
DOCUMENT NUMBER: 128:240349
TITLE: Use of a non-mammalian DNA virus to express an exogenous gene in a mammalian cell for gene therapy in **treatment** of gene deficiency disorder or liver cancer
INVENTOR(S): Boyce, Frederick M.
PATENT ASSIGNEE(S): General Hospital Corp., USA
SOURCE: U.S., 25 pp. Cont.-in-part of U.S. 311,157.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5731182	A	19980324	US 1995-486341	19950607
US 5871986	A	19990216	US 1994-311157	19940923
CA 2200835	AA	19960328	CA 1995-2200835	19950908
WO 9609074	A1	19960328	WO 1995-US11456	19950908
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9536750	A1	19960409	AU 1995-36750	19950908
AU 702830	B2	19990304		
EP 785803	A1	19970730	EP 1995-934407	19950908
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				

CN 1172435	A	19980204	CN 1995-196379		19950908
JP 10506530	T2	19980630	JP 1995-510940		19950908
ZA 9507797	A	19960708	ZA 1995-7797		19950915
US 6238914	B1	20010529	US 1996-752030		19961119
PRIORITY APPLN. INFO.:			US 1994-311157	A2	19940923
			US 1995-486341	A	19950607
			WO 1995-US11456	W	19950908

TI Use of a non-mammalian DNA virus to express an exogenous gene in a mammalian cell for gene therapy in **treatment** of gene deficiency disorder or liver cancer

SO U.S., 25 pp. Cont.-in-part of U.S. 311,157.
CODEN: USXXAM

IN Boyce, Frederick M.

AB Disclosed is a method of expressing an exogenous gene in a mammalian cell, involving infecting the cell with a non-mammalian virus, such as a baculovirus, whose genome carries an exogenous gene, and growing the cell under conditions such that the gene is expressed. Exogenous genes are delivered to mammalian cells by use of a **transfer** vector such as that described in the figure. Also disclosed is a method of treating a gene deficiency disorder in a mammal by providing to a cell a therapeutically effective amt. of a virus whose genome carries an exogenous gene and growing the cell under conditions such that the exogenous gene is expressed in the mammal.

L5 ANSWER 28 OF 42 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER:	1997:718014 CAPLUS
DOCUMENT NUMBER:	128:2903
TITLE:	**Transfer factors** and nucleic acids encoding them and use of **transfer factors** for **treatment** or prevention of infections
INVENTOR(S):	Kirkpatrick, Charles H.; McdDrmott, Martin J.; Eisenberg, Stephen P.
PATENT ASSIGNEE(S):	Cytokine Sciences, Inc., USA
SOURCE:	PCT Int. Appl., 115 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9740159	A1	19971030	WO 1997-US6349	19970417
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5883224	A	19990316	US 1996-635062	19960419
CA 2251943	AA	19971030	CA 1997-2251943	19970417
AU 9728028	A1	19971112	AU 1997-28028	19970417
EP 906427	A1	19990407	EP 1997-922324	19970417
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRIORITY APPLN. INFO.:			US 1996-635062	19960419

WO 1997-US6349 19970417

TI **Transfer factors** and nucleic acids encoding them and use of **transfer factors** for **treatment** or prevention of infections

SO PCT Int. Appl., 115 pp.
CODEN: PIXXD2

IN Kirkpatrick, Charles H.; McdDrmott, Martin J.; Eisenberg, Stephen P.

AB Characterization of **transfer factors** is provided in the form of amino acid and nucleic acid sequences corresponding to at least a portion of a conserved **transfer factor** region. The amino acid and nucleic acid sequences, or functional homologs thereof, are provided along with methods of use thereof for diagnostic, therapeutic and other purposes. Ferritin- and ovalbumin-specific **transfer factors** were prepd. and purified. These **transfer factors** were peptides with mol. wt. 4900-5000 daltons. The amino acid compn. of the ferritin-specific **transfer factor** was detd. Herpes simplex virus 1-specific **transfer factor** was also purified from cattle. Using this **factor**, viral immunity was transferred from cattle to mice. Peptides from various **transfer factors** were detd. and conserved peptide sequences were deduced. The cloning of **transfer factor** DNA was described.

L5 ANSWER 29 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:386534 CAPLUS
DOCUMENT NUMBER: 127:104864
TITLE: Comprehensive quantification of herpes simplex virus latency at the single-cell level
AUTHOR(S): Sawtell, N. M.
CORPORATE SOURCE: Division Infectious Diseases, Children's Hospital Medical Center, Cincinnati, OH, 45229-3039, USA
SOURCE: J. Virol. (1997), 71(7), 5423-5431
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Comprehensive quantification of herpes simplex virus latency at the single-cell level

SO J. Virol. (1997), 71(7), 5423-5431
CODEN: JOVIAM; ISSN: 0022-538X

AU Sawtell, N. M.

AB To date, characterization of latently infected tissue with respect to the no. of cells in the tissue harboring the viral genome and the no. of viral genomes contained within individual latently infected cells has not been possible. This level of cellular quantification is a crit. step in detg. (1) viral or host cell **factors** which function in the establishment and maintenance of latency, (2) the relationship between latency burden and reactivation, and (3) the effectiveness of vaccines or antivirals in reducing or preventing the establishment of latent infections. A novel approach is presented for the quant. anal. of nucleic acids within the individual cells comprising complex solid tissues. One unique feature is that the anal. reflects the nucleic acids within the individual cells as they were in the context of the intact tissue - hence the name CXA, for contextual anal. Trigeminal ganglia latently infected with herpes simplex virus (HSV) were analyzed by CXA of viral DNA. Both the type and the no. of cells harboring the viral genome as well as the

no. of viral genomes within the individual latently infected cells were detd. Here it is demonstrated that (1) the long-term repository of HSV-1 DNA in the ganglion is the neuron, (2) the viral-genome copy no. within individual latently infected neurons is variable, ranging over 3 orders of magnitude from <10 to >1000, (3) there is a direct correlation between increasing viral input titer and the no. of neurons in which latency is established in the ganglion, (4) increasing viral input titer results in more neurons with greater nos. of viral-genome copies, (5) **treatment** with acyclovir (ACV) during acute infection reduces the no. of latently infected ganglionic neurons 20-fold, and (6) ACV **treatment** results in uniformly low (<10)-copy-no. latency. This report represents the first comprehensive quantification of HSV latency at the level of single cells. Beyond viral latency, CXA has the potential to advance many studies in which rare cellular events occur in the background of a complex solid tissue mass, including microbial pathogenesis, tumorigenesis, and anal. of gene **transfer**.

L5 ANSWER 30 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:318204 CAPLUS
DOCUMENT NUMBER: 126:292446
TITLE: Therapeutic applications of animal sera including horse serum in the **treatment** of AIDS, cancer, and other viral and bacterial diseases
INVENTOR(S): Chachoua, Samir
PATENT ASSIGNEE(S): Chachoua, Samir, Mex.
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9711667	A2	19970403	WO 1996-IB1115	19960925
WO 9711667	A3	19970612		
W: AL, AM, AU, BB, BG, BR, CA, CN, CU, CZ, EE, FI, GE, HU, IS, JP, KE, KG, KP, KR, LK, LR, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2233015	AA	19970403	CA 1996-2233015	19960925
CA 2233445	AA	19970403	CA 1996-2233445	19960925
AU 9671431	A1	19970417	AU 1996-71431	19960925
EP 853486	A2	19980722	EP 1996-932773	19960925
EP 853486	A3	20000209		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: US 1995-4281 19950925
WO 1996-IB1115 19960925

TI Therapeutic applications of animal sera including horse serum in the **treatment** of AIDS, cancer, and other viral and bacterial diseases
SO PCT Int. Appl., 46 pp.
CODEN: PIXXD2

IN Chachoua, Samir
AB Animal (e.g. horse) antisera raised by using target organism or target organism-contg. patient cell is washed with patient's red blood cell, and used together with pharmaceuticals for treating disease. The target organism and cell includes AIDS virus, HIV, herpes, cytomegalovirus, pneumocystis, cancer cell, virus, bacteria, etc. The disease include AIDS, opportunistic infections, cancer, and viral or bacterial diseases. The pharmaceuticals combination is selected from AZT, DDI, 2-MEA, BHT, antibiotic, chemotherapeutic agent, radiotherapeutic agent, **transfer factor**, death sequence **factor**, antigen, fibroblast ext., etc. Multimodal therapy using Streptococcal phage, procaine penicillin, and P24 antigen as well as horse antiserum against AIDS were described.

L5 ANSWER 31 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:305212 CAPLUS
DOCUMENT NUMBER: 126:338815
TITLE: Topical application of viral vectors for epidermal gene **transfer**
AUTHOR(S): Lu, Bo; Federoff, Howard J.; Wang, Yibin; Goldsmith, Lowell A.; Scott, Glynis
CORPORATE SOURCE: Departments Dermatol. Neurol., Univ. Rochester Sch. Med. Dentistry, Rochester, NY, USA
SOURCE: J. Invest. Dermatol. (1997), 108(5), 803-808
CODEN: JIDEAE; ISSN: 0022-202X
PUBLISHER: Blackwell
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Topical application of viral vectors for epidermal gene **transfer**
SO J. Invest. Dermatol. (1997), 108(5), 803-808
CODEN: JIDEAE; ISSN: 0022-202X
AU Lu, Bo; Federoff, Howard J.; Wang, Yibin; Goldsmith, Lowell A.; Scott, Glynis
AB Efficient gene **transfer** with extended gene expression is essential for successful **treatment** of skin diseases using gene therapy. Previously we evaluated a phys. gene **transfer** method (gene gun delivery) for its ability to **transfer** the epidermis in vivo. In this study, we tested two viral vectors for their ability to transduce murine epidermis through topical application. Both an adenoviral vector and a herpes simplex virus (HSV) amplicon vector transduced murine epidermis with high efficiency after topical application. Differences in amt. and duration of transgene expression were compared between these two vectors. Quant. anal. of reporter lacZ gene expression showed that the viral vector-mediated gene **transfers** were superior to gene-gun delivery of plasmid DNA. Significant necrosis and cytotoxicity, however, were obsd. in the HSV-treated skin. In addn., we show that murine epidermis developed hyperkeratosis and acanthosis 4 d after an adenoviral vector contg. a human TGF-.alpha. expression unit was applied topically. Finally we demonstrate the feasibility of transduction of fetal skin in utero by intraamniotic injection of an adenovirus vector.

L5 ANSWER 32 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:265865 CAPLUS
DOCUMENT NUMBER: 126:272825
TITLE: Development of an HSV-based vector of the **treatment** of Parkinson's disease
AUTHOR(S): Fink, David J.; Poliani, P. Luigi; Oligino, Thomas; Krisiky, David M.; Goins, William F.; Glorioso, Joseph

C.
CORPORATE SOURCE: Dep. Mopl. Genetics Biochem., Univ. Pittsburgh Sch. Med., Pittsburgh, PA, 15261, USA
SOURCE: Exp. Neurol. (1997), 144(1), 103-112
CODEN: EXNEAC; ISSN: 0014-4886
PUBLISHER: Academic
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
TI Development of an HSV-based vector of the **treatment** of Parkinson's disease
SO Exp. Neurol. (1997), 144(1), 103-112
CODEN: EXNEAC; ISSN: 0014-4886
AU Fink, David J.; Poliani, P. Luigi; Oligino, Thomas; Krisiky, David M.; Goins, William F.; Glorioso, Joseph C.
AB A review, with 87 refs. The restricted pattern of neurodegeneration seen in Parkinson's disease, and the identification of trophic **factors** that prevent toxin-induced degeneration of dopaminergic neurons, has spurred research into potential gene therapy for this disease. Herpes simplex virus (HSC-1) is a neurotrophic virus which naturally establishes latency in neurons. HSV-based vectors have been demonstrated to **transfer** and transiently express transgenes in neurons in brain in vivo. Recent expts. have shown that deletion of multiple immediate-early HSV genes reduces the potential cytotoxicity of these vectors, and in addn. results in altered patterns of transgene expression that may allow for long-term expression required for human gene therapy applications.

L5 ANSWER 33 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:182898 CAPLUS
DOCUMENT NUMBER: 126:234026
TITLE: Using herpes simplex virus type 1 (HSV-1) mediated gene **transfer** to study neurotrophins in cochlear neurons
AUTHOR(S): Garrido, Juan Jose; Alonso, Maria Teresa; Lim, Filip; Represa, Juan; Giraldez, Fernando; Schimmang, Thomas
CORPORATE SOURCE: Instituto de Biologia y Genetica Molecular (IBGM), Universidad de Valladolid-CSIC, Valladolid, Spain
SOURCE: Int. J. Dev. Biol. (1996), (Suppl. 1, Proceedings of the First Congress of the Spanish Society of Developmental Biology, 1996), 149S-150S
CODEN: IJDBE5; ISSN: 0214-6282
PUBLISHER: University of the Basque Country Press
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Using herpes simplex virus type 1 (HSV-1) mediated gene **transfer** to study neurotrophins in cochlear neurons
SO Int. J. Dev. Biol. (1996), (Suppl. 1, Proceedings of the First Congress of
the Spanish Society of Developmental Biology, 1996), 149S-150S
CODEN: IJDBE5; ISSN: 0214-6282
AU Garrido, Juan Jose; Alonso, Maria Teresa; Lim, Filip; Represa, Juan; Giraldez, Fernando; Schimmang, Thomas
AB In the present study we first demonstrate that HSV-1 vectors can be used to **transfer** and express genes in avian neurons. Next, we have infected these neurons with a defective HSV-1 vector carrying brain-derived neurotrophic **factor**. The data presented show that gene **transfer** using this vector leads to neurite outgrowth, reflecting the expression of biol. active BDNF in the infected cells. HSV-1 mediated **transfer** of neurotrophins may be envisaged as a possible therapeutic tool, allowing the recovery and /or protection of auditory neurons during or after ototoxic damage.

L5 ANSWER 34 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:173886 CAPLUS
DOCUMENT NUMBER: 126:211002
TITLE: Clinical study of HSV-specific **transfer factor** on relapse HSVK
AUTHOR(S): Zhu, Xiuping; Liu, Xianning; Li, Mingli; Zhang, Lanjun; Yin, Yong
CORPORATE SOURCE: Dep. Ophthalmology, Xi'an First Hospital, Xi'an, 710002, Peop. Rep. China
SOURCE: Xi'an Yike Daxue Xuebao (1996), 17(3), 322-324
CODEN: XYDXEZ; ISSN: 0258-0659
PUBLISHER: Xi'an Yike Daxue
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
TI Clinical study of HSV-specific **transfer factor** on relapse HSVK
SO Xi'an Yike Daxue Xuebao (1996), 17(3), 322-324
CODEN: XYDXEZ; ISSN: 0258-0659
AU Zhu, Xiuping; Liu, Xianning; Li, Mingli; Zhang, Lanjun; Yin, Yong
AB The **treatment** of 40 cases of relapsing HSVK (herpes simplex virus keratitis) with HSV specific **transfer factor** is reported. The effective rate was 100%, the cure rate was 86.6%. The changes in red cell immunity were studied with red cell Rossette test. There were significant differences between 10 normal subjects and 40 cases of HSVK before **treatment**, and between 40 cases before **treatment** and after **treatment** ($P < 0.01$). The red cell immunity in the patients with HSVK was low, and after **treatment** with HSV specific **transfer factor**, it was very high.

L5 ANSWER 35 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:79548 CAPLUS
DOCUMENT NUMBER: 126:112864
TITLE: Adenoviral vector mediated delivery of the herpes simplex virus thymidine kinase gene sensitizes Epstein-Barr virus transformed B-cell lines to ganciclovir
AUTHOR(S): Kim, M.; Accavitti, M.A.; Saleh, M.N.; Rosenfeld, M.E.; Johanning, F-W.; Curiel, T.J.; Curiel, D.T.
CORPORATE SOURCE: Gene Therapy Program, University of Alabama at Birmingham, Birmingham, AL, USA
SOURCE: Tumor Targeting (1996), 2(4), 215-223
CODEN: TUTAF9; ISSN: 1351-8488
PUBLISHER: Chapman & Hall
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Adenoviral vector mediated delivery of the herpes simplex virus thymidine kinase gene sensitizes Epstein-Barr virus transformed B-cell lines to ganciclovir
SO Tumor Targeting (1996), 2(4), 215-223
CODEN: TUTAF9; ISSN: 1351-8488
AU Kim, M.; Accavitti, M.A.; Saleh, M.N.; Rosenfeld, M.E.; Johanning, F-W.; Curiel, T.J.; Curiel, D.T.
AB A variety of strategies have been proposed to accomplish gene therapy for B-cell neoplasms. Implementation of such strategies has been limited by the lack of vector methods to accomplish efficient gene **transfer** in B-cell targets. As a result, B-cells have traditionally been viewed as transduction-refractory targets, exhibiting limited gene expression

following various phys. and viral approaches to gene **transfer**. To accomplish effective gene **transfer** to this cellular target, we have investigated the utility of recombinant adenoviral vectors. This anal. demonstrated that various B-cell lines differed substantially in their ability to respond to adenovirus-mediated gene **transfer**, as evidenced by significantly different levels of reporter gene expression. In another series of expts., Jiyoye cells, Raji cells and other B-cell lines were exposed to AdTK, a recombinant adenovirus encoding the herpes simplex thymidine kinase (HSV-TK) gene. Cellular expression of the HSV-TK gene results in cytotoxicity upon exposure to the drug ganciclovir. In these studies virtually 100% of the AdTK-treated Jiyoye cells were killed upon addn. of ganciclovir to the culture medium. Raji cells, however, exhibited less than a 5% drop in viability following the addn. of ganciclovir. These results further emphasize that Jiyoye cells, but not Raji cells, are readily transducible with adenoviral vectors. The **factors** detg. susceptibility of specific B-cell lines to adenoviral transduction vectors have the ability to mediate high levels of gene **transfer** in certain B-cell targets and thus may allow for the development of gene therapy approaches for the **treatment** of B-cell neoplasms.

L5 ANSWER 36 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:42756 CAPLUS
DOCUMENT NUMBER: 126:102912
TITLE: In vitro studies during long term oral administration of specific **transfer factor**
AUTHOR(S): Pizza, Giancarlo; De Vinci, Caterina; Fornarola, Vittorio; Palareti, Aldopaolo; Baricordi, Olavio; Viza, Dimitri
CORPORATE SOURCE: Immunodiagnosis Immunotherapy Unit, 1st-Div. Urology, Bologna, Italy
SOURCE: Biotherapy (Dordrecht, Neth.) (1996), 9(1/3, Biological Response Modifiers in Research and Treatment of Cancer, Infectious Diseases, and Immunological and Inflammatory Disorders), 175-185
CODEN: BTHREW; ISSN: 0921-299X
PUBLISHER: Kluwer
DOCUMENT TYPE: Journal
LANGUAGE: English
TI In vitro studies during long term oral administration of specific **transfer factor**
SO Biotherapy (Dordrecht, Neth.) (1996), 9(1/3, Biological Response Modifiers in Research and Treatment of Cancer, Infectious Diseases, and Immunological and Inflammatory Disorders), 175-185
CODEN: BTHREW; ISSN: 0921-299X
AU Pizza, Giancarlo; De Vinci, Caterina; Fornarola, Vittorio; Palareti, Aldopaolo; Baricordi, Olavio; Viza, Dimitri
AB Patients (153) suffering from recurrent pathologies, i.e. viral infections (keratitis, keratouveitis, genital and labial herpes) uveitis, cystitis, and candidiasis were treated with in vitro produced **transfer factor** (TF) specific for HSV-1/2, CMV and Candida albicans. The cell-mediated immunity of seropos. patients to HSV-1/2 and/or CMV viruses was assessed using the leukocyte migration inhibition test (LMT) and lymphocyte stimulation test (LST) in presence of the corresponding

antigens, and the frequency of pos. tests before, during and after TF administration was studied. The data were stratified per type of test, antigen and the recipients' pathol., and statistically evaluated. For the LMT, a total of 960 tests were carried out for each antigen diln., 3 different antigen dilns. were used per test. 240/960 Tests (25.4%) were found pos. during non-**treatment** or **treatment** with unspecific TF, whereas 147/346 tests (42.5%) were found pos. when the antigen corresponding to the specificity of the TF administered to the patient was used. When the data were stratified following pathol., a significant increased incidence of pos. tests during specific **treatment** was also obsd. In the LST (1174 tests), a significant increase of thymidine uptake was obsd. in the absence of antigen (control cultures), during **treatment** with both specific and unspecific TF, but also in the presence of antigen and/or autologous serum during specific TF administration. TF administration also significantly increased the sol. HLA class I antigens level in 40 patients studied to this effect.

L5 ANSWER 37 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:42370 CAPLUS
DOCUMENT NUMBER: 126:88157
TITLE: Use of **transfer factor** for the **treatment** of recurrent non-bacterial female cystitis (NBRC): a preliminary report
AUTHOR(S): De Vinci, Caterina; Pizza, Giancarlo; Cuzzocrea, Diego; Menniti, Domenico; Aiello, Ernesto; Maver, Paolo; Corrado, Giuseppe; Romagnoli, Piero; Dragoni, Ennio; LoConte, Giuseppe; Riolo, Umberto; Masi, Massimo; Severini, Giuseppe; Fornarola, Vittorio; Viza, Dimitri
CORPORATE SOURCE: Urology, Immunodiagnosis Immunotherapy Unit, S. Orsola-Malpighi Hospital, Bologna, 40138, Italy
SOURCE: Biotherapy (Dordrecht, Neth.) (1996), 9(1/3, Biological Response Modifiers in Research and Treatment of Cancer, Infectious Diseases, and Immunological and Inflammatory Disorders), 133-138
CODEN: BTHREW; ISSN: 0921-299X
PUBLISHER: Kluwer
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Use of **transfer factor** for the **treatment** of recurrent non-bacterial female cystitis (NBRC): a preliminary report
SO Biotherapy (Dordrecht, Neth.) (1996), 9(1/3, Biological Response Modifiers in Research and Treatment of Cancer, Infectious Diseases, and Immunological and Inflammatory Disorders), 133-138
CODEN: BTHREW; ISSN: 0921-299X
AU De Vinci, Caterina; Pizza, Giancarlo; Cuzzocrea, Diego; Menniti, Domenico; Aiello, Ernesto; Maver, Paolo; Corrado, Giuseppe; Romagnoli, Piero; Dragoni, Ennio; LoConte, Giuseppe; Riolo, Umberto; Masi, Massimo; Severini, Giuseppe; Fornarola, Vittorio; Viza, Dimitri
AB Results of conventional **treatment** of NBRC are discouraging. Most patients show an unexpected high incidence of vaginal candidiasis, while their cell mediated immunity to herpes simplex viruses (HSV) and Candida antigens seems impaired, and it is known that the persistence of mucocutaneous chronic candidiasis is mainly due to a selective defect of CMI to Candida antigens. Twenty nine women suffering of NBRC, and in whom

previous **treatment** with antibiotics and non-steroid anti-inflammatory drugs was unsuccessful, underwent oral **transfer factor** (TF) therapy. TF specific to Candida and/or to HSV was administered bi-weekly for the first 2 wk, and then once a week for the following 6 mo. No side effects were obsd. during **treatment**. The total observation period of the authors' cohort was 24,379 days with 343 episodes of cystitis recorded and a cumulative relapse index (RI) of 43. The observation period during and after **treatment** was 13,920 days with 108 relapses and a cumulative RI of 23. Thus, specific TF may be capable of controlling NBRC and alleviating the symptoms.

L5 ANSWER 38 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:42178 CAPLUS
DOCUMENT NUMBER: 126:102987
TITLE: Lessons from a pilot study of **transfer factor** in chronic fatigue syndrome
AUTHOR(S): De Vinci, Caterina; Levine, Paul H.; Pizza, Giancarlo; Fudenberg, Hugh H.; Orens, Perry; Pearson, Gary; Viza, Dimitri
CORPORATE SOURCE: Immunoldiagnosis Immunotherapy Unit, 1st Div. Urology Sant'Orsola-Malpighi Hosp., Bologna, Italy
SOURCE: Biotherapy (Dordrecht, Neth.) (1996), 9(1/3, Biological Response Modifiers in Research and Treatment of Cancer, Infectious Diseases, and Immunological and Inflammatory Disorders), 87-90
CODEN: BTHREW; ISSN: 0921-299X
PUBLISHER: Kluwer
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Lessons from a pilot study of **transfer factor** in chronic fatigue syndrome
SO Biotherapy (Dordrecht, Neth.) (1996), 9(1/3, Biological Response Modifiers in Research and Treatment of Cancer, Infectious Diseases, and Immunological and Inflammatory Disorders), 87-90
CODEN: BTHREW; ISSN: 0921-299X
AU De Vinci, Caterina; Levine, Paul H.; Pizza, Giancarlo; Fudenberg, Hugh H.; Orens, Perry; Pearson, Gary; Viza, Dimitri
AB **Transfer Factor** (TF) was used in a placebo controlled pilot study of 20 patients with chronic fatigue syndrome (CFS). Efficacy of the **treatment** was evaluated by clin. monitoring and testing for antibodies to Epstein-Barr virus (EBV) and human herpes virus-6 (HHV-6). Of the 20 patients in the placebo-controlled trial, improvement was obsd. in 12 patients, generally within 3-6 wk of beginning **treatment**. Herpes virus serol. seldom correlated with clin. response. This study provided experience with oral TF, useful in designing a larger placebo-controlled clin. trial.

L5 ANSWER 39 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:42172 CAPLUS
DOCUMENT NUMBER: 126:88153
TITLE: Use of anti HHV-6 **transfer factor** for the **treatment** of two patients with chronic fatigue syndrome (CFS). Two case reports
AUTHOR(S): Ablashi, Dharam V.; Levine, Paul H.; De Vinci, Caterina; Whitman, James E., Jr.; Pizza, Giancarlo; Viza, Dimitri

CORPORATE SOURCE: Advanced Biotechnologies Inc., Columbia, MD, 21046, USA
SOURCE: Biotherapy (Dordrecht, Neth.) (1996), 9(1/3, Biological Response Modifiers in Research and Treatment of Cancer, Infectious Diseases, and Immunological and Inflammatory Disorders), 81-86
CODEN: BTHREW; ISSN: 0921-299X
PUBLISHER: Kluwer
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Use of anti HHV-6 **transfer factor** for the **treatment** of two patients with chronic fatigue syndrome (CFS). Two case reports
SO Biotherapy (Dordrecht, Neth.) (1996), 9(1/3, Biological Response Modifiers in Research and Treatment of Cancer, Infectious Diseases, and Immunological and Inflammatory Disorders), 81-86
CODEN: BTHREW; ISSN: 0921-299X
AU Ablashi, Dharam V.; Levine, Paul H.; De Vinci, Caterina; Whitman, James E., Jr.; Pizza, Giancarlo; Viza, Dimitri
AB Specific human herpes virus-6 (HHV-6) **transfer factor** (PF) prepn., administered to 2 chronic fatigue syndrome patients, inhibited the HHV-6 infection. Prior to **treatment**, both patients exhibited an activated HHV-6 infection. TF **treatment** improved the clin. manifestations of CFS in one patient who resumed normal duties within weeks, whereas no clin. improvement was obsd. in the second patient. Thus, HHV-6 specific TF may be of value in controlling HHV-6 infection and related illnesses.

L5 ANSWER 40 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:42146 CAPLUS
DOCUMENT NUMBER: 126:73695
TITLE: Orally administered HSV-specific **transfer factor** (TF) prevents genital or labial herpes relapses
AUTHOR(S): Pizza, Giancarlo; Viza, Dimitri; De Vinci, Caterina; Palareti, Aldopaolo; Cuzzocrea, Diego; Fornarola, Vittorio; Baricordi, Roberto
CORPORATE SOURCE: Immunodiagnosis Immunotherapy Unit, 1st-Div. Urology, Bologna, Italy
SOURCE: Biotherapy (Dordrecht, Neth.) (1996), 9(1/3, Biological Response Modifiers in Research and Treatment of Cancer, Infectious Diseases, and Immunological and Inflammatory Disorders), 67-72
CODEN: BTHREW; ISSN: 0921-299X
PUBLISHER: Kluwer
DOCUMENT TYPE: Journal
LANGUAGE: English
TI Orally administered HSV-specific **transfer factor** (TF) prevents genital or labial herpes relapses
SO Biotherapy (Dordrecht, Neth.) (1996), 9(1/3, Biological Response Modifiers in Research and Treatment of Cancer, Infectious Diseases, and Immunological and Inflammatory Disorders), 67-72
CODEN: BTHREW; ISSN: 0921-299X
AU Pizza, Giancarlo; Viza, Dimitri; De Vinci, Caterina; Palareti, Aldopaolo; Cuzzocrea, Diego; Fornarola, Vittorio; Baricordi, Roberto
AB Forty-four patients suffering from genital (22) and labial (22) herpes were orally treated with HSV-1/2-specific **transfer**

factor(TF). TF was obtained by in vitro replication of a HSV-1/2-specific bovine dialyzable lymphocyte ext. **Treatment** was administered by-weekly the first 2 wk, and then weekly for 6 mo, most patients received 2-3 courses. The total observation period for all patients before **treatment** was 26660 days, with 544 relapses, and a relapse index of 61.2, whereas the cumulative observation period during and after **treatment** was 16945 days, with a total of 121 relapsing episodes and a cumulative RI of 21.4. Results were equally significant when the 2 groups of patients (labial and genital) were considered sep. These observations confirm previous results obtained with bovine HSV-specific TF, and warrant further studies to establish HSV-specific TF as a choice of **treatment** for preventing herpes recurrences.

L5 ANSWER 41 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:42141 CAPLUS
DOCUMENT NUMBER: 126:102908
TITLE: Efficacy of **transfer factor** in treating patients with recurrent ocular herpes infections
AUTHOR(S): Meduri, Renato; Campos, Emilio; Scorolli, Lucia; De Vinci, Caterina; Pizza, Giancarlo; Viza, Dimitri
CORPORATE SOURCE: Eye Physiopathology Clin. Service, Univ. Bologna, Italy
SOURCE: Biotherapy (Dordrecht, Neth.) (1996), 9(1/3, Biological Response Modifiers in Research and Treatment of Cancer, Infectious Diseases, and Immunological and Inflammatory Disorders), 61-66
CODEN: BTHREW; ISSN: 0921-299X
PUBLISHER: Kluwer
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Efficacy of **transfer factor** in treating patients with recurrent ocular herpes infections

SO Biotherapy (Dordrecht, Neth.) (1996), 9(1/3, Biological Response Modifiers in Research and Treatment of Cancer, Infectious Diseases, and Immunological and Inflammatory Disorders), 61-66
CODEN: BTHREW; ISSN: 0921-299X

AU Meduri, Renato; Campos, Emilio; Scorolli, Lucia; De Vinci, Caterina; Pizza, Giancarlo; Viza, Dimitri

AB Recurrent ocular herpes is an insol. problem for the clinician. As cellular immunity plays an important role in controlling herpes relapses, and other studies have shown the efficacy of HSV-specific **transfer factor** (TF) for the **treatment** of herpes patients, an open clin. trial was undertaken in 134 patients (71 keratitis, 29 kerato-uveitis, 34 uveitis) suffering from recurrent ocular herpetic infections. The mean duration of the **treatment** was 358 days, and the entire follow-up period 189,121 before, and 64,062 days after TF **treatment**. The cell-mediated immune response to the viral antigens, evaluated by the lymphocyte stimulation test (LST) and the leukocyte migration test (LMT) ($P<0.001$), was significantly increased by the TF **treatment**. The total no. of relapses was decreased significantly during/after TF **treatment**, dropping from 832 before, to 89 after **treatment**, whereas the cumulative relapse index (RI) dropped, during the same period, from 13.2 to 4.17. No side effects were obsd. It is concluded that patients with relapsing ocular herpes can benefit from **treatment** with HSV-specific TF.

L5 ANSWER 42 OF 42 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:42135 CAPLUS
DOCUMENT NUMBER: 126:73628
TITLE: Profiles of cytokine production in recipients of **transfer factors**
AUTHOR(S): Alvarez-Thull, Linda; Kirkpatrick, Charles H.
CORPORATE SOURCE: Innovative Therapeutics, Inc., The Divisions Allergy Clinical Immunology National Jewish Cent. Immunology Respiratory Med., Denver, CO, USA
SOURCE: Biotherapy (Dordrecht, Neth.) (1996), 9(1/3, Biological Response Modifiers in Research and Treatment of Cancer, Infectious Diseases, and Immunological and Inflammatory Disorders), 55-59
CODEN: BTHREW; ISSN: 0921-299X
PUBLISHER: Kluwer
DOCUMENT TYPE: Journal
LANGUAGE: English

TI Profiles of cytokine production in recipients of **transfer factors**

SO Biotherapy (Dordrecht, Neth.) (1996), 9(1/3, Biological Response Modifiers in Research and Treatment of Cancer, Infectious Diseases, and Immunological and Inflammatory Disorders), 55-59
CODEN: BTHREW; ISSN: 0921-299X

AU Alvarez-Thull, Linda; Kirkpatrick, Charles H.

AB **Transfer factors** (TF) are proteins that **transfer** the ability to express cell-mediated immunity from immune donors to non-immune recipients. The mechanisms of these effects have not been defined. The expts. described in this report were undertaken to test the hypothesis that a mechanism through which the beneficial effects of TF are expressed in clin. situation is through "education" of the immune system to produce certain cytokines in response to antigenic stimulation. BALB/c mice were sensitized to herpes simplex virus (HSV) either by sublethal systemic or cutaneous infections by administration of a HSV-specific TF. One week later their spleen cells were collected and single cell suspensions were stimulated in vitro with irradiated HSV or Con A. Culture supernatants were collected and assayed for content of IL-2, IL-4, IL-10 and IFN-.gamma.. Spleen cells from infected mice responded to Con A and to HSV by secreting large amts. of IL-2 and IFN-.gamma., modest amts. of IL-10, and not IL-4. **Transfer factor** recipients produced similar cytokine profiles in response to Con A. These mice, however, responded to HSV to secreting IFN-.gamma., but not IL-2. Thus, TF **treatment** selectively affects cytokine prodn. in response to antigenic stimulation.